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10/540,825	06/23/2005	Toshiyuki Kawaguchi	P/2850-111	8886

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EXAMINER	
ROBINSON, ELIZABETH A	
ART UNIT	PAPER NUMBER
1794	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/540,825	KAWAGUCHI ET AL.	
	Examiner	Art Unit	
	Elizabeth Robinson	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) *29-44* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 June 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06-23-2005, 07-25-2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, claims 1-28 in the reply filed on August 21, 2007 is acknowledged.

Claims 29-44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on August 21, 2007.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference character 15 in Figure 9 is not mentioned in the specification.

The drawings are also objected to for the following reasons:

Drawings 21-26 would be clearer if there was a heading indicating what the graph was depicting. They would also be clearer if a key were provided that indicates what the thick and thin lines are indicating.

Drawings 27-32 would be clearer if there was a heading indicating what the graph was depicting.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures

appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim states a limitation of a specific gravity, but does not say which material it pertains to. It is unclear if this value is for the binder or for the composite layer or for the entire suppressor.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 7-10, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Senda et al. (US 5,990,417).

Regarding claim 1, Senda teaches an electromagnetic noise absorbing material (Column 1, lines 7-10) comprising a binding agent (non-magnetic insulating material) and a magnetic material (alloy magnetic substance) (Column 13, lines 3-17). The binding agent and the magnetic material are integrated with each other into a composite layer (Column 11, lines 38-48 and Figure 10).

Regarding claim 2, Senda (Column 11, lines 38-56) teaches that the composite layer can be formed by sputtering, a physical vapor deposition process. This process disperses the alloy magnetic substance into the non-magnetic insulating substance.

Regarding claims 7-10, Senda (Column 12, lines 30-53) teaches that the skin depth of the alloy magnetic substance is 0.16 to 1.6 μm. This range either is fully encompassed by or overlaps the range of the instant claims.

Regarding claim 12, Senda (Column 18, line 66 through Column 19, line 62 and Figure 29) teaches a structure that comprises a plurality of overlapping layers of electromagnetic wave absorbing sheets that can be formed from the electromagnetic noise absorbing material of the second embodiment (Figure 10).

Regarding claim 13, Senda (Column 13, lines 3-8) teaches that the binding agent can be a polyethylene naphthalate, polyethylene teraphthlate or polyimide resin.

Claims 1, 4, 13, 17, 18, 21-24, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (US 5,864,088).

Regarding claim 1, Sato (Column 3, lines 55-65, and Figure 1) teaches an electromagnetic interference suppressor, which has a base material containing a binder (organic binder 4) and a composite layer consisting of the binding agent (organic binder 4) and a magnetic material (soft magnetic powder 3) uniformly dispersed in the binder. The base layer can be either the lower layer 2 in Figure 1 or a portion of one of the layers 2, since it is not required that there be no magnetic material in the base material. Alternately, the base layer can be layer 1 as in Figures 3 and 4, since it comprises the same binder 4 as in the composite layer (Column 4, lines 28-42).

Regarding claim 4, Sato (Column 8, line 65 through column 9, line 18) teaches the transparent level (maximum transmission attenuation) of the noise suppressor. Samples 1-3, 5, 6 and 8 all have values that meet the limitation of the instant claim.

Regarding claim 13, Sato (Column 5, lines 46-52) teaches that the binder can be a resin or a rubber.

Regarding claim 17, Sato (Column 4, lines 28-34) teaches that the noise suppressor can be formed with a layer 1 that comprises a conductive powder 8. The conductive powder (Column 5, lines 39-45) can be a metal powder, which would be thermally conductive.

Regarding claim 18, Sato (Column 4, lines 35-42) teaches that the noise suppressor can also comprise a non-conductive base member (support layer).

Regarding claims 21 and 22, as stated above, layer 1 can be considered to be the base layer. Layer 1 can comprise metal powder or conductive carbon black.

Regarding claims 23 and 24, the layer 1 can be a conductive plate, a conductive mesh plate or a textile of conductive fiber (Column 4, line 66 through Column 5, line 5). Alternately, the layer 1 can comprise a non-conductive base, and a metal, magnetic metal, conductive carbon, or organic conductive material (Column 5, lines 32-38) formed by sputtering or vacuum deposition (Column 5, lines 53-58).

Regarding claim 27, Sato (Column 4, lines 58-65) teaches that the layer 2 can further comprise dielectric powder 11.

Regarding claim 28, Sato (Column 5, lines 59-67) teaches that the dielectric powder can be a barium titanate series ceramic, a titanium oxide-zirconium oxide series ceramic, or a lead perovskite series ceramic.

Claims 1, 4, 12, 13 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Inomata et al. (JP 2000-196281). A machine translation of this document is provided with this Office Action. A formal English translation will be provided with the next Office Action.

Regarding claim 1, Inomata (Paragraph 27) teaches an electromagnetic wave absorber that comprises a base material 1 (base material) and an electromagnetic wave absorption layer 2 (composite layer). The binders for the base layer 1 (Paragraph 32) and the binders for the electromagnetic wave absorption layer 2 (Paragraphs 34-36) can be the same. The composite layer 2 comprises soft magnetism particles in a macromolecule binder (Paragraph 15).

Regarding claim 4, Inomata (Paragraphs 76 and 77 and Table 4) teaches that the electromagnetic wave absorber can have a transmission attenuation, at certain frequencies, that meets the limitations of the instant claim.

Regarding claim 12, Inomata (Paragraph 28 and drawing 2) teaches that a plurality of the noise suppressors can be stacked one on another.

Regarding claim 13, Inomata (Paragraphs 32 and 34-36) teaches that the binding agent can be a resin.

Regarding claims 19 and 20, Inomata (Paragraph 19) teaches that the layer 2 can also comprise a phosphorous fire retardancy compound. Inomata (Paragraphs 7 and 8) further teaches that the flame retarding agent should not be a halogen or antimony containing material. When the suppressor comprises multiple layers 2, one of these layers can be considered to be the base layer and would also have the flame retardant agent.

Regarding claims 21 and 22, Inomata (Paragraphs 41 and 44) teaches that the layer 2 can comprise conductive particles, such as carbon black and metal particles. When the suppressor comprises multiple layers 2, one of these layers can be considered to be the base layer and contain the electrically conductive filler.

Claim Rejections - 35 USC § 102/103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-6 and 11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Senda et al. As stated above, Senda teaches an electromagnetic noise suppressor formed in the same manner as in the instant application. The binders and magnetic materials (Column 13, lines 3-17) include many of the same materials as in the instant application. A noise suppressor formed of the same materials and in the same manner would inherently have the same properties and thus meet the limitations of the instant claims.

Claim Rejections - 35 USC § 103

Claims 2 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al., in view of Senda et al.

Regarding claim 2, as stated above, Sato teaches a noise suppressor that meets the limitations of claim 1. The magnetic material is mixed with the binder, not physically vapor deposited. However, Senda (Column 11, lines 45-56) teaches that identical effects can be achieved by forming the suppressor by sputtering methods and by mixing the alloy magnetic particles into a non-magnetic insulating substance paste. The patentability of a product is independent of how it was made. Ex parte Jungfer 18 USPQ 1796, 1800 (BPAI 1991); Brystol-Myers Co. v. U.S. International Trade Commission 15 USPQ 2d 1258 (Fed. Cir. 1989). The burden is on applicants to show product differences in product by process claims. In re Thorpe 227 USPQ 964 (Fed. Cir. 1985); In re Best 195 USPQ 430 (CCPA 1977).

Regarding claim 14, Sato (Column 5, lines 46-52) teaches that the binder can be a thermosetting (hardening) resin.

Regarding claims 15 and 16, Sato (Column 5, lines 46-52) teaches that the binder can be a rubber material. Rubbers have an elastic modulus of shear that meets the limitations of the instant claims.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al., in view of Okamura et al. (US 6,104,530). As stated above, Sato teaches an electromagnetic noise suppressor that meets the limitations of claim 24 and can comprise a non-conductive base, and a metal, magnetic metal, conductive carbon, or organic conductive material layer formed by sputtering or vacuum deposition. Sputtering is a physical deposition method. Sato does not specify the thickness of the metal layer. Okamura (Column 7, lines 22-40) teaches an electromagnetic wave absorbing material comprising electrically conductive thin metal film layers. Okamura (Column 11, line 45 through Column12, line 8) further teaches that the metal film is preferably formed by sputtering, in particular magnetron sputtering, since this technique allows easy control of film thickness. The thickness of the metal film is taught to be 4 to 30 nm in order to provide optimal electric conductivity of the layer (Column 10, lines 34-37). This range overlaps the thickness of the instant claim. It would be obvious to one of ordinary skill in the art to use metal film thickness as taught by Okamura for the noise absorber of Sato, in order to have optimal conductivity for the conductive metal layer of the suppressor.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al., in view of Okamura et al. as applied to claim 25 above, and further in view of Kadokura et al. (US 4,784,739). As stated above Sato teaches that the metal layer can be formed by sputtering and Okamura teaches that, in particular, magnetron sputtering is preferred. They do not explicitly teach opposing target type magnetron sputtering as the process. Kadokura (Column 1, lines 8-24) teaches that opposed target type magnetron sputtering is effective for forming a thin, uniform metallic film and for easily controlling the thickness of the film. It would be obvious to one of ordinary skill in the art to use opposing target type magnetron sputtering as the sputtering method, in order to easily and uniformly form the thin metallic layer of the suppressor.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 13 and 14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-7 and 13 of copending Application No. 10/538,132. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both electromagnetic noise suppressors comprising a base layer and composite layer, formed in the same manner, from the same materials.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Robinson whose telephone number is 571-272-7129. The examiner can normally be reached on Monday- Friday 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization.where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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CAROL CHANEY
SUPERVISORY PATENT EXAMINER